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1-24-01

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/732,091

DATE: 12/26/2000

DATE: 12/20/20
TIME: 14:28:29

Input Set : A:\7969-088.app
Output Set: N:\CRF3\12262000\I732091.raw

4 <110> APPLICANT: Tian, Jing-Hui
 5 Walker, Richard T.
 6 Jackson, W. James
 8 <120> TITLE OF INVENTION: Helicobacter proteins, gene sequences and uses
 9 thereof
 11 <130> FILE REFERENCE: 7969-088
 C--> 13 <140> CURRENT APPLICATION NUMBER: US/09/732,091
 C--> 14 <141> CURRENT FILING DATE: 2000-12-07
 16 <160> NUMBER OF SEQ ID NOS: 44
 18 <170> SOFTWARE: PatentIn Ver. 2.1
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 22 <212> TYPE: DNA
 23 <213> ORGANISM: Helicobacter sp.
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 32 gtgtatggag gcccacgggt taaaaggcaa tgcgaaattca ttaagaaaaaa tccccaatgt 420
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 42 ctatagatatta ggggtgttaag ccatgtgtttt aatttactt tgccttataa cactgagagc 1020
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 55 <212> TYPE: PRT
 56 <213> ORGANISM: Helicobacter sp.
 58 <400> SEQUENCE: 2
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 60 1 5 10 15

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 65 Lys Ser Val Tyr Glu Ala Gly Phe Thr Ser Pro Ser Pro Ile Gln Glu
 66 35 40 45
 68 Lys Ala Ile Pro Ala Val Leu Gln Gly Arg Asp Val Ile Ala Gln Ala
 69 50 55 60
 71 Gln Thr Gly Thr Gly Lys Thr Ala Ala Phe Ala Leu Pro Ile Ile Asn
 72 65 70 75 80
 74 Asn Leu Lys Asn Asn His Thr Ile Glu Ala Leu Val Ile Thr Pro Thr
 75 85 90 95
 77 Arg Glu Leu Ala Met Gln Ile Ser Asp Glu Ile Phe Lys Leu Gly Lys
 78 100 105 110
 80 His Thr Arg Thr Lys Thr Val Cys Val Tyr Gly Gly Gln Ser Val Lys
 81 115 120 125
 83 Lys Gln Cys Glu Phe Ile Lys Asn Pro Gln Val Met Ile Ala Thr
 84 130 135 140
 86 Pro Gly Arg Leu Leu Asp His Leu Lys Asn Glu Arg Ile His Lys Phe
 87 145 150 155 160
 89 Val Pro Lys Val Val Val Leu Asp Glu Ser Asp Glu Met Leu Asp Met
 90 165 170 175
 92 Gly Phe Leu Asp Asp Ile Glu Glu Ile Phe Asp Tyr Leu Pro Ser Glu
 93 180 185 190
 95 Ala Gln Ile Leu Ile Phe Ser Ala Thr Met Pro Glu Pro Ile Lys Arg
 96 195 200 205
 98 Leu Ala Asp Lys Ile Leu Glu Asn Pro Ile Lys Ile His Ile Ala Pro
 99 210 215 220
 101 Ser Asn Ile Thr Asn Thr Asp Ile Thr Gln Arg Phe Tyr Val Ile Asn
 102 225 230 235 240
 104 Glu His Glu Arg Ala Glu Ala Ile Met Arg Leu Leu Asp Thr Gln Ala
 105 245 250 255
 107 Pro Lys Lys Ser Ile Val Phe Thr Arg Thr Lys Lys Glu Ala Asp Glu
 108 260 265 270
 110 Leu His Gln Phe Leu Ala Ser Lys Asn Tyr Lys Ser Thr Ala Leu His
 111 275 280 285
 113 Gly Asp Met Asp Gln Arg Asp Arg Arg Ser Ser Ile Met Ala Phe Lys
 114 290 295 300
 117 Lys Asn Asp Ala Asp Val Leu Val Ala Thr Asp Val Ala Ser Arg Gly
 118 305 310 315 320
 120 Leu Asp Ile Ser Gly Val Ser His Val Phe Asn Tyr His Leu Pro Leu
 121 325 330 335
 123 Asn Thr Glu Ser Tyr Ile His Arg Ile Gly Arg Thr Gly Arg Ala Gly
 124 340 345 350
 126 Lys Lys Gly Met Ala Ile Thr Leu Val Thr Pro Leu Glu Tyr Lys Glu
 127 355 360 365
 129 Leu Leu Arg Met Gln Lys Glu Ile Asp Ser Glu Ile Glu Leu Phe Glu
 130 370 375 380
 132 Ile Pro Thr Ile Asn Glu Asn Gln Ile Ile Lys Thr Leu His Asp Ala
 133 385 390 395 400
 135 Lys Val Ser Glu Gly Ile Ile Ser Leu Tyr Glu Gln Leu Thr Glu Ile

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208 Asn Arg Gln Ala Leu Ser Ala Ala Thr Leu Thr Leu Phe Lys Met Gly
209 145      150      155      160
211 Gly Phe Lys Ser Tyr Gin Leu Ala Val Ile Val Ala Asn Ala Val Ala
212      165      170      175
214 Lys Thr Ile Leu Gly Arg Gly Leu Ser Leu Ala Gly Asn Gln Val Leu
215      180      185      190
217 Thr Arg Thr Leu Ser Phe Leu Thr Gly Pro Val Gly Trp Ile Ile Thr
218      195      200      205
220 Gly Val Trp Thr Ala Ile Asp Ile Ala Gly Pro Ala Tyr Arg Val Thr
221      210      215      220
223 Ile Pro Ala Cys Ile Val Val Ala Thr Leu Arg Leu Lys Thr Gln Gln
224 225      230      235      240
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233 <213> ORGANISM: Helicobacter sp.
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239 Gly Leu Lys Glu Ser Val Leu Lys Ser Val Tyr Glu Ala Gly Phe Thr
240      20      25      30
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250 <211> LENGTH: 31
251 <212> TYPE: PRT
252 <213> ORGANISM: Helicobacter sp.
254 <400> SEQUENCE: 6
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259      20      25      30
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264 <212> TYPE: PRT
265 <213> ORGANISM: Helicobacter sp.
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272      20      25
275 <210> SEQ ID NO: 8

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Input Set : A:\7969-088.app
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277 <212> TYPE: PRT
278 <213> ORGANISM: Helicobacter sp.
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284 Arg Ile His Lys Phe Val Pro Lys Val Val Val Leu Asp Glu Ser Asp
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288 35 40
291 <210> SEQ ID NO: 9
292 <211> LENGTH: 31
293 <212> TYPE: PRT
294 <213> ORGANISM: Helicobacter sp.
296 <400> SEQUENCE: 9
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304 <210> SEQ ID NO: 10
305 <211> LENGTH: 23
306 <212> TYPE: PRT
307 <213> ORGANISM: Helicobacter sp.
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313 Ala Pro Lys Lys Ser Ile Val
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317 <210> SEQ ID NO: 11
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319 <212> TYPE: PRT
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329 Ala Phe Lys Lys
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334 <211> LENGTH: 41
335 <212> TYPE: PRT
336 <213> ORGANISM: Helicobacter sp.
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343 20 25 30
345 Gly Lys Lys Gly Met Ala Ile Thr Leu

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VERIFICATION SUMMARY

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DATE: 12/26/2000

TIME: 14:28:30

Input Set : A:\7969-088.app

Output Set: N:\CRF3\12262000\I732091.raw

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L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date

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